

Work Order ID 130399

Tuesday, March 10, 2015 10:22:33 AM

130399

Page 1

Item ID: D350-604-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Rear Locker Extender
 Start Date: 3/10/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 7/15/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 15-03-10 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2273	<u>JK</u>								
D350-604-041	C								

100 Document Control 0.00
100
 DC
 Doc.Control -USB or Paperwork

Memo

Photocopy bluefile and create labels per PPP D350-604-041

CHG008

CHG009
15-10-09

MLJ 15-03-10 ①

MLJ

OCT 09 2015

110 PURCHASING 0.00
110
 Purchasing
 Purchasing

Memo

Issue P/O: 27723
 Description: D350-604-041 Rear locker extender.
 Manufacture as per dwg D2273
 Supplier: FDC Composites Inc.
 Certification of Conformity and process sheet required.

***EXTREME CARE MUST BE TAKEN TO PROTECT THE SURFACES OF
 THE REAR LOCKER. THE SURFACES MUST BE SMOOTH AND FREE
 FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR
 DENTS.***

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

MLJ 15-03-10 ①

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 130399

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Page 2

Item ID: D350-604-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Rear Locker Extender

Start Date: 3/10/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/15/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Receive & Inspect for Damage & Mat'l Certs Packaging	0.00							
120									
Packaging	Memo	0.00				DAS 6 9-89			OCT 02 2015
Packaging	Ensure a copy of Certification of Conformity and process sheet from Carbon-by-Design is attached.								
	DO NOT STACK REAR LOCKERS OR ANYTHING ON THEM								
130	QC6- Inspect dimensions to drawing	0.00							
130									
QC	Memo	0.00							DAS 9 9-89
Quality Control	Check hole locations to template. DT 8824 Check process sheet and audit.								
140		0.00							
140									
Small Fab	Memo	0.00							
Small Fab	1- INSTALL DECALS AS PER DWG 2- INSTALL CAM LOCK STUDS AND RETAINING WASHER								

P.T.O.

① 15-10-09

15/10/9 SP

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Crosstube ☐ Machining ☐ Small Fab ☐ Thermoforming ☐ Finishing ☐ Large Fab ☐ Composite ☒ Water Jet ☐ Engineering ☐ Prod. Eng. Coord. ☐ Quality ☐ Rec/Store/Packaging ☐ Other ☐ Supplier ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design				 Due to cracks found in the gel-coat by the supplier a paint was recommended to use to cover/fix the cracks. 20. stress caused during cure times of different materials. 		 Paint 694124 1A PPG Gelcoat Attached burn test by supplier 			
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

Re-worked by supplier

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☒ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID/ 130399***130399***

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Item ID: D350-604-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Rear Locker Extender

Stop ***NS2***

Start Date: 3/10/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/15/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Memo

0.00

Quality Control

① 1510-09 PD

155

Pick Kit

0.00

155

Packaging

Memo

0.00

Packaging

DO NOT STACK REAR LOCKERS OR ANYTHING ON THEM

15/10/9 SLP

158

QC4- 100% Inspect kits for completeness

0.00

158

QC

Memo

0.00

Quality Control

① PD 15-10-D9.

DQA:

Date: 16/02/04



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 16/02/05

Work Order update only ☐

Work Order: 130399	DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. D350-604-041	Rework ☒	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	
NCR No 16-5567	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
	Use-as-is ☒	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☒		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15.10.09	110	1	Surface was refinished by sanding gelcoat to remove cracks and application of PPG 6941241A 2C Acrylate white paint lot 00022. Catalyst was PPG 794002 2C Acrylate lot 98841	A.R. 15.10.09	SEE ATTACHED C of C from FDC composites with deviations. FDC Lot # 2015-07-14 was used for burn test, test method was per TP-D350-604-1 witnessed by DE#02 David Shepherd. SEE attached approval by DE #02	A.R. 15.10.09	DAS 9 8-89 15.10.09	DAS 9 8-89 15.10.09
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General			
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced	
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up	
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure	
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld	
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled	
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	☐ Other	
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge		
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread			
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set			
☐ Turning Sequence	☒ Finish	☐ Out of Calibration			
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence			

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Tuesday, March 10, 2015 10:22:33 AM

Item ID: D350-604-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Rear Locker Extender

Start Date: 3/10/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/15/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

0.00

160

Packaging

Packaging

Memo

0.00

Identify and pack for shipping as per PPP D350-604-041

Location:

PPP Rev:

Ship

13/10/15

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.00

Quality Control

MLC OCT 8 3 2015

MLC OCT 8 3 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
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Material									
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Offset/Setup									
Process									
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Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Tuesday, March 10, 2015 10:22:36 AM

Page 2

Work Order ID: 130399

130399

Parent Item: D350-604-041

D350-604-041

Parent Item Name: Rear Locker Extender

Start Date: 3/10/2015

Required Date: 7/15/2015

Start Qty: 1.00

Required Qty: 1.00

D2268 Manufactured No

140 Each 13.0000 1 1

D2268

Placard

**

130957

DAS
6
9-89

Location

Loc Qty

Loc Code

ST006

13

110734

1

127457

12

D2728-1 Manufactured Yes

140 Each 0.0000 0 0

D2728-1

Dart Logo Label Small

**

DAS
6
9-89

D2269 Manufactured No

155 Each 14.0000 1 1

D2269

Placard

**

131139

DAS
6
9-89

Location

Loc Qty

Loc Code

ST006

14

111345

2

127708

12

D5062-041 Manufactured No

155 Each 6.0000 1 1

D5062-041

Bracket Assembly

**

131060

DAS
6
9-89

Location

Loc Qty

Loc Code

ST144

6

121957

6

OCT 02 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
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Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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TABLE 1 

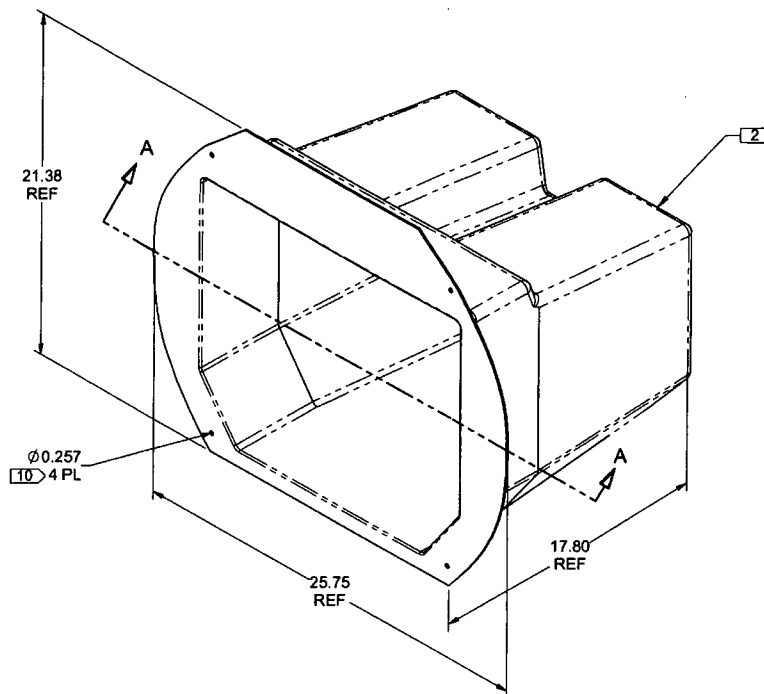
POSITION	MATERIALS
1	TOOL SURFACE
2	GEL COAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER

TABLE 2 

POSITION	MATERIALS
1	TOOL SURFACE
2	GEL COAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
6	7725 FIBER GLASS
7	7725 FIBER GLASS
8	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER

NOTES:

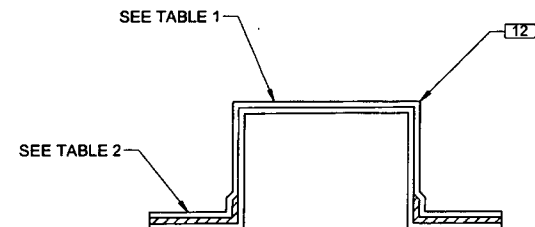
- 1) MATERIAL: SEE TABLE 3
- 2) FINISH: SEE TABLES 1, 2, & 3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 5.5- 7.5 lbs
- 8) LAMINATE PER DART QSI 006. LAMINATION SCHEDULE PER THIS DRAWING
- 9) LAYUP USING DT9871 MOLD. WET LAYUP WITH BAG/VACUUM
- 10) TRIM & DRILL PER DT9905. OPEN HOLES TO Ø0.196
- 11) CONSTRUCTION: SEE TABLES 1 & 2
- 12) MATTE TO HOLD DOWN CORNERS AS REQUIRED



D2273 REAR LOCKER EXTENDER

TABLE 3 

MATERIAL USED	DESCRIPTION
GEL COAT	POLYCOR 2330PAWK745 (WHITE)
FIBER GLASS MAT	OWENS CORNING 3/4 oz CHOPPED STRAND MAT
FIBER GLASS CLOTH	HEXCEL 7725 FIBER GLASS
RESIN SYSTEM	DION 7704
PRIMER	TEMPO 4500-PB-23G (GREEN)



SECTION A-A

RELEASED

2015 MAR 24

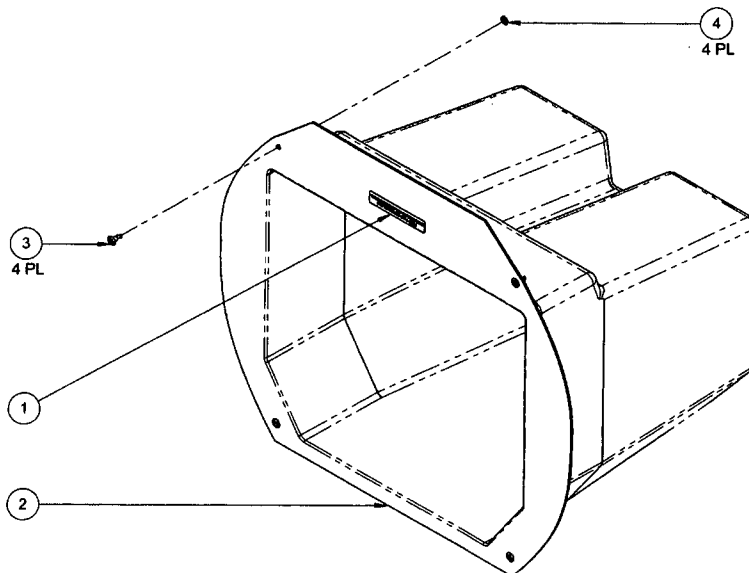
4P EN 15-545

APPROVED

REV.	DESCRIPTION	BY	DATE
K	LAYUP AND MAT'L PER FDC COMPOSITES PROCESS	CP	15.03.12
J	CHANGED GELCOAT TO 4314-001 DURA FR WHITE	ML	13.12.10
I	CHANGE GELCOAT TO POLYCOR 2330PAWK745	SFM	13.08.13
H	CHANGE MATERIAL & MANUFACTURING PROCESS	DC	13.03.15
G	ADD MANUFACTURING OPTION B, ZN B5-1	DC	12.08.08
F	PRIMER LE 3404-S/LE 1175-S WAS 1144-S, ZN A6-1	DC	12.02.27
E	CHANGED SURFACE FINISH FROM 944W005 GELCOAT TO 2330PAWK745 GELCOAT, ZN A7-1. UPDATED DWG TO CURRENT STANDARDS.	DC	12.02.02
D	REMOVE EPOCAST, ADD SURFACE FINISH	CP	02.04.01
C	CLARIFY MATERIAL, LAYUP, AND TOOLING	RF	02.01.30
B	RE-DRAWN	MM	96.05.27
DESIGN	JB	DATE	
DRAWN	CP		
CHECKED	AJS		
MFG. APPR.	DD		
APPROVED	HS		
DE APPR.	DS		
DATE	15.03.12		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADADRAWING NO.
D2273REV. K
SHEET 1 OF 1TITLE
350 REAR LOCKER EXTENDER NTSCOPYRIGHT © 1996 BY DART AEROSPACE LTD
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ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
	X	D350-604-041	REAR LOCKER EXTENDER ASSEMBLY
1	1	D2268	PLACARD
2	1	D2273	REAR LOCKER EXTENDER
3	4	2600-6	CAMLOCK STUD
4	4	2600-LW	RETAINING WASHER



D350-604-041 REAR LOCKER EXTENDER ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 5.5 to 7.5 lbs
- 8) INSTALL D2268 PLACARD IN LOCATION SHOWN, CENTERED ON FLANGE

C	REMOVE D2728-1, D2729-1 DECALS (ZN C5-1). REVISED RELATED NOTES, UPDATED PART WEIGHT	ML	13.12.16
B	INCORPORATE DSI 9470 (ZN D7-1). UPDATE DWG TO CURRENT STANDARDS. ADD D2728-1 PLACARD AND ORIENTATION NOTE (ZN C3-1). ADD D2729-1 (ZN C5-1).	DC	12.02.07
A	NEW ISSUE	CP	02.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D350-604-041	SHEET 1 OF 1
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	RLE ASSY	NTS
DATE	14.01.02	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

FDC Con. sites inc.
45, Chem. de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5

Tél. : 450 357-1344

Bon de livraison

24/09/2015

Commande : 2235
Référence : PO #027723/1/2/3/4

Client : Dart

DART AEROSPACE
1270 Aberdeen Street
Hawkesbury, ON
K6A 1K7

Expédier à

Même

Tél. : 1 613 632-9577

No item	Description	Qté	Qté livrée	Qté B/O
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/1 Lot: 2015-07-14 As per DWG: D2273 Rev J	1	<u> </u>	<u> </u>
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/2 Lot: 2015-05-22 As per DWG: D2273 Rev J	1	<u> </u>	<u> </u>
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/3 Lot: 2015-07-07-1 As per DWG: D2273 Rev J	1	<u> </u>	<u> </u>
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/4 Lot: 2015-05-21-1 As per DWG: D2273 Rev J	1	<u> </u> 15/10/20	<u> </u>

Transport : _____

Nb colis : _____

Marchandise reçue : _____

Réf. : _____



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO27723**

Purchase Order Date 3/10/2015

PO Print Date 3/25/2015

Page Number 1 of 3

Order From :

VC-FDC01

FDC COMPOSITES INC.
45 CHEMIN DE L'AEROPORT
ST-JEAN-SUR-RICHELIEU, QUEBEC J3B 7B5

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 450-357-1344

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Ship To Phone

Terms

Net 30

Ship Via:

FedEx Overnight collect

Currency

CAD

Ship Acct:

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D350-604-041P AS PER DWG.D2273 REV.K B130399	Rear Locker Extender	7/15/2015 Yes 7/15/2015		1.00 Each	\$640.00	\$640.00
Line Total:							\$640.00
2	D350-604-041P AS PER DWG.D2273 REV.K B130400	Rear Locker Extender	7/15/2015 Yes 7/15/2015		1.00 Each	\$640.00	\$640.00
Line Total:							\$640.00
3	D350-604-041P AS PER DWG.D2273 REV.K B130401	Rear Locker Extender	7/15/2015 Yes 7/15/2015		1.00 Each	\$640.00	\$640.00

Note:

3/25/2015



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CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

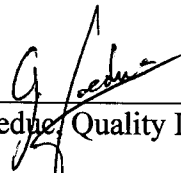
Customer P/O Number: 27723

<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Drawing number</u>	<u>Description</u>	<u>Lot</u>
1	1	D350-604-041P	D2273 Rev J	350 Rear Locker Extender	2015-07-14
2	1	D350-604-041P	D2273 Rev J	350 Rear Locker Extender	2015-05-22
3	1	D350-604-041P	D2273 Rev J	350 Rear Locker Extender	2015-07-07-1
4	1	D350-604-041P	D2273 Rev J	350 Rear Locker Extender DAS	2015-05-21-1

9
9-89

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature:


Guillaume Leduc Quality Inspector

④

Date: 2015-09-24.

FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5
Tél. : 450 357-1344

Bon de livraison

24/09/2015

Commande : 2235
Référence : PO #027723/1/2/3/4

Client : Dart

DART AEROSPACE
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7

Expédier à

Même

Tél.: 1 613 632-9577

No item	Description	Qté	Qté livrée	Qté B/O
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/1 Lot: 2015-07-14 As per DWG: D2273 Rev J	1	_____	_____
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/2 Lot: 2015-05-22 As per DWG: D2273 Rev J	1	_____	_____
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/3 Lot: 2015-07-07-1 As per DWG: D2273 Rev J	1	_____	_____
D350-604-041P	REAR LOCKER EXTENDER PO item: 27723/4 Lot: 2015-05-21-1 As per DWG: D2273 Rev J	1	_____	_____

DAS
9
9-89

Transport : _____
Nb colis : _____

Réf. : _____

Marchandise reçue : _____



ANALYSIS REPORT
SCC Accreditation No.: 40‡

Mr Sylvain Santerre
FDC Composites Inc.

Date: October 2, 2015
 Report: S1233-013-84264A

IDENTIFICATION: Composite: DAE001-38, 2015-05-22
 Received: September 30, 2015; PO#: 2951

STANDARD:

TEST: Paragraph 4: Vertical test - 60 seconds FAR 25.853 Appendix F Part I
(b)-Par.4*1

TEST CONDITIONS: *1Incorporates Amendment 25-111, Eff. 09/02/2003.
 Sample conditioned ($70 \pm 5^{\circ}\text{F}$ ($21 \pm 3^{\circ}\text{C}$), $50 \pm 5\%$ R.H.);
 Gas used: Methane; Ignition time: 60 seconds.
 Direction of weave corresponding to the most critical flammability: N/A
 Date tested: October 02, 2015

RESULTS:	Individual Data					Avg.	S.D.	% CV
Burn length (in):	3.6	4.4	3.8	3.9	4.1	4.0	0.3	7.7
Flame time (s):	0.0	0.0	0.0	1.2	4.0	1.0	1.7	166.8
Dripping ?	no	no	no	no	no			

REQUIREMENTS: For materials covered by par. (a)(1)(i):

- The average burn length may not exceed 6 inches;
- The average flame time after removal of the flame source may not exceed 15 seconds;
- Drippings from the test specimen may not continue to flame for more than an average of 3 seconds after falling.

Prepared by:

Julien Gagné
 Julien Gagné, Tech.
 Technician

Approved by:

Edith D. Maril
 For: Eric Blond, Eng., M.Sc.A. Date: October 2, 2015
 Vice-President

****For any information concerning this report, please contact Eric Blond****

The reports are identified by an alphanumeric code, the last character refers to the number of revision(s), this is emitted in ascending order. The samples in relation to this test are retained for a period of 30 days following the expedition day of the written report, unless other instructions are received. The fees for all services after the tests are 125.00 \$ per hour and for appraisal in Court, 195.00\$ per hour. The above reported results refer exclusively to the samples submitted for evaluation. This analysis report cannot be partly used or reproduced, unless in whole, without CTT Group prior written consent. ‡ CTT Group is accredited by the SCC for specific tests as listed on www.scc.ca. For customer's complete address, please refer to the front page.



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CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

Customer P/O Number: 27723

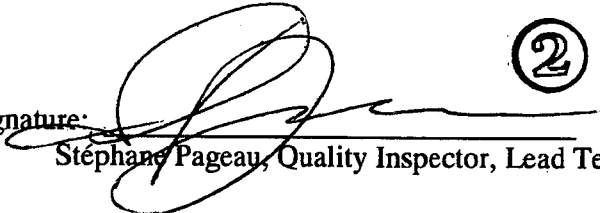
<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Drawing number</u>	<u>Description</u>	<u>Lot</u>
1	1	D350-604-041P	D2273 Rev K	350 Rear Locker Extender	2015-07-14
2	1	D350-604-041P	D2273 Rev K	350 Rear Locker Extender	2015-05-22
3	1	D350-604-041P	D2273 Rev K	350 Rear Locker Extender	2015-07-07-1
4	1	D350-604-041P	D2273 Rev K	350 Rear Locker Extender	2015-05-21-1

DAS
9
9-89

Operation performed : surface refinish by sanding gelcoat to remove cracks and application of PPG 6941241A 2C Acrycote White paint Lot 00022. Catalyst was PPG 794002 2C Acrycote Lot 98841.

PPG acrycote paint complies with FAR 25.853 Appendix F Part I (b)-Par.4 (Vertical Test 60 seconds). See attached Analysis Report from CTT Group.

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature: 
Stéphane Pageau, Quality Inspector, Lead Tech.

②

Date: 2015-10-08



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CERTIFICATE of CONFORMITY

Customer Name Dart .

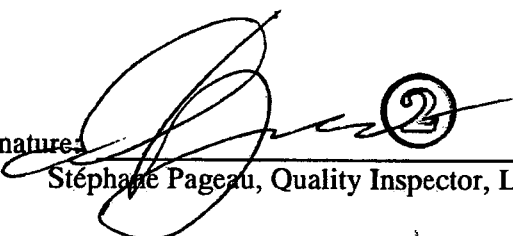
FDC P/O Number: 2951

ANALYSIS REPORT REQUEST: CTT will performed FST FAR 25.853 Appendix F Part I (b)-Par.4 (Vertical Test 60 seconds):

To test the surface refinish with PPG 6941241A 2C Acrycote White paint Lot 00022. Catalyst was PPG 79402 2C Acrycote Lot 98841, Gel coat polycor 2330PAWK745, ¾ oz chopped strand mat, 6 layers 7725 fiberglass and primer Tempo 4500-PG-23G, Dion Resin system 7704..

ANALYSIS REPORT must clearly state that the paint complies with FAR 25.853 Appendix F Part I (b)-Par.4 (Vertical Test 60 seconds)..

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied (5 Sample) are in accordance with the requirements of the applicable Purchase Order.

Signature: 

Stéphane Pageau, Quality Inspector, Lead Tech.

Date: 2015-07-28



GroupeCTTGroup

Geosynthetics Division SAGEOS Géosynthétiques

ANALYSIS REPORT SCC Accreditation No.: 40‡

Mr Sylvain Santerre
FDC Composites Inc.

Date: October 2, 2015
Report: S1233-013-84264A

IDENTIFICATION: Composite: DAE001-38, 2015-05-22
Received: September 30, 2015; PO#: 2951

STANDARD:

TEST: Paragraph 4: Vertical test - 60 seconds FAR 25.853 Appendix F Part I
(b)-Par.4*1

TEST CONDITIONS: *Incorporates Amendment 25-111, Eff. 09/02/2003.
Sample conditioned ($70 \pm 5^\circ\text{F}$ ($21 \pm 3^\circ\text{C}$), $50 \pm 5\%$ R.H.);
Gas used: Methane; Ignition time: 60 seconds.
Direction of weave corresponding to the most critical flammability: N/A
Date tested: October 02, 2015

RESULTS:	Individual Data					Avg.	S.D.	% CV
Burn length (in):	3.6	4.4	3.8	3.9	4.1	4.0	0.3	7.7
Flame time (s):	0.0	0.0	0.0	1.2	4.0	1.0	1.7	166.8
Dripping ?	no	no	no	no	no			

REQUIREMENTS: For materials covered by par. (a)(1)(i):

- The average burn length may not exceed 6 inches;
- The average flame time after removal of the flame source may not exceed 15 seconds;
- Drippings from the test specimen may not continue to flame for more than an average of 3 seconds after falling.

Prepared by:

Julien Gagné
Julien Gagné, Tech.
Technician

Approved by:

Eric Blond
For: Eric Blond, Eng., M.Sc.A. Date: October 2, 2015
Vice-President

****For any information concerning this report, please contact Eric Blond****

The reports are identified by an alphanumeric code, the last character refers to the number of revision(s), this is emitted in ascending order. The samples in relation to this test are retained for a period of 30 days following the expedition day of the written report, unless other instructions are received. The fees for all services after the tests are 125.00 \$ per hour and for appraisal in Court, 195.00\$ per hour. The above reported results refer exclusively to the samples submitted for evaluation. This analysis report cannot be partly used or reproduced, unless in whole, without CTT Group prior written consent. ‡ CTT Group is accredited by the SCC for specific tests as listed on www.scc.ca. For customer's complete address, please refer to the front page.

Alex Pharand

From: Chris Provencal
Sent: Thursday, October 08, 2015 6:03 PM
To: Alex Pharand
Subject: FW: Burn Testing Update

From: David Shepherd
Sent: Thursday, October 08, 2015 12:56 PM
To: Alain Pelletier <apelletier@dartaero.com>; Nigel Forbes <nforbes@dartaero.com>; Linda Lacelle <llacelle@dartaero.com>; William Monterroza <wmonterroza@dartaero.com>; Chris Provencal <cprovencal@dartaero.com>; Patrick Smith <psmith@dartaero.com>
Subject: Burn Testing Update

All burn testing coupons passed, including the RLE coupons. When Chris is satisfied with the paperwork from the vendor, we can start shipping RLE.

David

Sent from my BlackBerry 10 smartphone on the Bell network.

Change Record

PAGE 1 OF 1

Part Number: D350-604-041

Description: REAR LOCKER EXTENDER

[illegible]